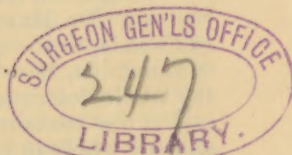


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AN ADDRESS ON INSANITY.

BY ✓

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THE NATURE AND DEFINITION OF INSANITY.

Not a century ago, a medical philosopher of France ventured to class the brain among the secreting organs of the body, and though he did not characterize thought as a secretion as tangible as that of the liver, the skin or the kidneys, he nevertheless regarded mind as the no less material product of the brain. As the stomach and intestines conduct the process of digestion, as the liver secretes bile, and as the parotid, sub-maxillary and sub-lingual glands secrete saliva, "so the brain," he concluded, "secretes thought."

This proposition, the philosophical and classical Maudsley considers "crude, inexact and misleading," though he himself regards mind as the highest development of force, to whose existence all the other natural forces are indispensably pre-requisite.

The talent and boldness of this learned and brilliant writer on the physiology and pathology of the mind, in seeking thus to cut the Gordian knot of psychical and physical phenomena, commands our admiration, but they have not yet been rewarded by a revelation of incontestable truth.

The essential nature of mind—whether it be an entity, presiding over and influenced by that highly complex mass of matter, the brain—a power, as Descartes conjectured, "which has come on man from without," or a highly organized force evolved only by cerebral cell action, is the mooted question of the day, which I shall not discuss, since psycho-physiologists, as yet, so dimly discern the subject, that many of them, and among them the greatest thinkers and investigators of the age, are disposed to relegate it to the realms of the unknowable.

The simile of Cabannis is open to the objection that behind the hepatic, renal and gastric organs, is the blood, out of which

*Delivered by invitation before the Southern Illinois Medical Association, at Sparta, Ill., on the evening of June 20th, 1879.

their respective secretions are formed ; so behind the brain, many great minds still believe, there exists the intangible mind, forever to remain unknown save in its manifestations and in the display of its powers.

The Aristotelian doctrine of the omnipresence of mind in the whole organism has, within a few years, been with plausibility revived. Dr. Hammond extends it to the spinal cord, Dr. Bucke, of Canada, to the sympathetic nervous system, while Dr. Laws, of Columbia, Missouri, awakens from its long repose and adopts the whole doctrine of Aristotle, that "in relation to the body the soul is less contained than containing—that it is all in the whole and the whole in every part."

Mind has not, however, been yet driven from its main abiding place in the brain, though Dr. Richard Maurice Bucke has, with great ability, endeavored to establish that our moral nature resides in the great sympathetic.

Mental power, as we see it displayed, may be regarded as an organized result gradually built up and matured in the course of a life.

Mind, like the entire individual, has its periods of infancy and childhood, youth and manhood and old age. The brain, like the body in general, is incapacitated at birth for its highest functions. It grows with the latter's growth and strengthens, in the course of development, with its strength. Unlike the other organs of the body, it is not born equal to its highest functions, but like the centers of the spinal cord, it is perfected by education in the school of experience with external nature. Mind, like the body, has its stages, and is not the same in appearance at the sunrise, noontide and sunset of life.

This fact enables us to understand the idiocy of infancy and early life, the instinctive and impulsive insanities, especially of childhood and youth, before the reasoning powers have become, in the course of nature, developed, and to appreciate the necessary difference between them and the morbid mental displays of middle and advanced age, when the reasoning and moral faculties are full grown or waning.

The different epochs usually give different manifestations of mental disorder, though sometimes insane, like *sane* persons, display intellectual precocity. The affective, instinctive and emotional insanities belong especially to early life, the intellectual to middle and the dementias to old age.

The physical condition of the brain and its allied nervous system, undoubtedly governs the display of mind, whatever may be the real nature of the latter.

Molecular action and disintegration or retrograde metamorphosis of structure and tissue change, are undoubtedly essential conditions of organic activity, physiological as well as pathological, and apply alike to the nervous structure and its higher centers concerned in cerebration or the generation of

thought, emotion and will, as to the centers of the cord and the processes of muscular, glandular and vascular structure and function.

Thus we have a correct conception of the definite relationship which mind invariably sustains to that "highly complex organism"—the brain and nervous system—through which alone all psychical states, whether morbid or healthy, natural or unnatural, are revealed. As the ganglion cells of the spinal cord develop a nervous force mainly concerned in the movements of the organic and involuntary life of the individual, so the cells of the brain develop a higher nerve force, which we may term a "*mental force*," whose special function is the manifestation of mind, because the preliminary generation of a certain nerve force is the indispensable condition prerequisite to the manifestation of all psychical states.

To avoid needless argument at this point, we may concede the possible existence, as has been maintained by some, of a difference between psychical and physical tone, though upon the physical tone of the brain and physical system undoubtedly depends the manifestation of mind.

Fortunately for practical medicine, in connection with mental disease, it is immaterial whether in accordance with the teachings of holy writ and the attestation of the general consciousness or instinctive sense of mankind, we believe "there is a spirit in man," or whether we regard mind solely as an attribute or force of matter, it is, to our mind, a fact above and beyond disproof, that the mind, whatever be its real nature, is dependent for its every manifestation upon the brain and nervous system.

Recognizing the brain then, as the especial organ of the mind in diseased or disordered as well as in healthy or natural action, we are prepared for a definition of insanity on the basis of disease.

Though insanity was generally regarded by the ancients as a punishment for having incurred the displeasure of the gods and by moderns, until a century or less ago, as a diabolical possession, Æsculapiades, Coelius Aurelianus and Celsus treated it as disease. Galen called it *delirium sive febre* and Aretius *semper sive febre*.

Without stopping to discuss the various literary attempts at defining this disorder, like that of Charles Lamb, who regarded it as a "disproportionate straining or excess of one or more of the mental faculties," which might include the majority of mankind, and passing by many of the medical definitions, we proceed to discuss a few of the latter.

Dr. Benj. Rush in the beginning of the century regarded this disease as "a departure of the mind in its perceptions, judgments and reasonings from its natural and habitual order, accompanied with corresponding actions, dependent on disease in the blood vessels primarily, and in that part of the brain which is the seat of the mind."

Dr. Munro defined it to be "a premature and abnormal exhaustibility of the vital powers of the sensorium." This is often the condition of the hemispherical ganglia in insanity, conjoined with a general loss of nervous tone, but neither cerebrasthenia nor neurasthenia constitute insanity *per se*. Though brain and nerve exhaustion usually coexist with insanity, they may be present without mental aberration. In some instances the insane display is due to a high grade of sthenic inflammation. The insanities which immediately follow cranial violence, in the robust and vigorous, are often of this kind.

Dr. Winslow asserts that no morbid change can exist in the hemispherical ganglia without involving to some extent the operations of the mind, and defines insanity to be the result of a specific morbid action of the hemispherical ganglia, ranging from irritation, passive and active congestion, up to positive and unmistakable inflammatory action. He thought "this state of the brain might be confined to one or two of the six (or eight) layers composing the hemispherical ganglia, but all the layers are generally more or less implicated, in conjunction with the tubular fibers passing from the hemispheres through the vesicular neurine."

A pretty correct statement, though a quarter of a century old, of the pathological condition generally found in insanity, but not a definition. It simply means disease of brain. Insanity is a qualified form of brain disease, involving the mind.

The light of three quarters of a century reflected from the cadaver has revealed lesions of the hemispherical ganglia where no insanity coexisted.

Though this definition lacks the essential psychic qualification, yet no better description of the general pathological state usually found in connection with insanity has ever been given.

A purely pathological definition cannot be made because the precise boundary lines of the *locus morbi* of mental aberration, beyond which sanity ceases and within which it invariably begins, has not yet been established.

Winslow's definition would include hemiplegia and epilepsy, both of which may begin in the hemispherical ganglia.

The funny definition of Sheppard, that "insanity is a disease of the neurine batteries of the brain," is likewise objectionable. Epilepsia is, in all probability, a discharging lesion of the psychomotor centers, and I suppose that is where Sheppard would place his "neurine batteries of the brain." Other diseases than epilepsy and paralysis, not necessarily accompanied with mental derangement, implicate the same parts of the brain in the same way.

A great many other attempts at defining this disease may be found scattered through medical literature, each one serving as an excellent description of many of the principal pathological or symptomatic states of mental derangement, but serving by

their very number and variety to confirm the oft asserted difficulty of defining this disorder.

The most ancient view of insanity is that "it is derived from a morbid state of the liver and that it discovers itself in a vitiated state of the bile." Rush thought Hippocrates was in error on this subject and that he never ought to have pronounced that historical encomium on Democritus whom he found in his garden at Abdera engaged intently in examining the liver of a dumb animal in order to discern the cause of madness. But the liver is often much at fault in insanity, especially in its incipency.

Connolly, of non-restraint fame, defined insanity as "the impairment of any one or more of the faculties of the mind, accompanied with or inducing a defect of the comparing faculties. A purely psychological definition, as you see, with no element of disease in it, yet as good as Winslow's with the psychic feature omitted.

The main feature of the definition of Pritchard, viz., "a chronic disease manifested by deviation from the healthy and natural state of the mind," is embraced in the definition of Gooche and Andrew Combe, which we shall hereafter discuss. Esquirol defined mental alienation to be "a cerebral affection, ordinarily chronic and without fever, characterized by disorders of sensibility, understanding and will."

Dr. Tuke, after quoting as *apropos* to the subject, the well known saying of Dr. Johnson in regard to attempts at defining poetry, namely, that they only serve to show the narrowness of the definer, and after animadverting on the definitions of Cullen, Guislain, Combe and others, and very properly objecting to *chronicity* and *apyrexia* as essential to a proper definition of the disease, himself defines it as follows: "A disease of the brain affecting one or more of the mental faculties, intellectual or emotional."

He quotes Dr. Bucknill's as being substantially the same, namely, "a condition of the mind in which a false action of conception or judgment, or a defective power of the will, or an uncontrollable violence of the emotions and instincts, have separately or conjointly been produced by disease," and concludes that it is not in any definition of mental derangement, but rather from descriptions of the disorder and actual observation of the insane that we are to comprehend its true characteristics," just as the great Esquirol had confessed before him after forty years of study and observation at the Salpêtrière and the hospital at Charenton. We must live with the insane in order to understand them, and having learned by experience "the varied and fugitive forms of this malady," we then realize the difficulty of describing it; and if we go from the corridors of the hospital for the insane to the dead house connected therewith, and essay with scalpel and microscope to find definite pathological changes in the brain to account for every case dying of reason dethroned,

we still have, sometimes, to leave the cadaver unrewarded for our labor; nevertheless insane asylum pathologists now seldom fail to find either morbid states of the cortex or meninges or ventricles, or *post mortem* evidences of *ante mortem* vascular or perivascular disease, sufficient to account for the preexisting mental impairment.

The conclusions of Schroeder Van-derkolk, who, in twenty-five years did not remember having dissected an insane person without finding an adequate explanation in morbid change of the phenomena observed during life, are confirmed by Maudsley, Blandford, Griesinger and all writers of repute in Europe, as well as Ray, Gray, Kempster and all the eminent alienists of this country. Even Dr. Benjamin Rush could say in 1812 that there were "but two instances on record of the brain being found free from morbid appearances in persons who have died of madness,"¹ so that with Liedsdorf we may safely say that "every mental disorder is founded in organic changes from which the brain suffers either primarily or secondarily."

It is probably not more difficult to frame a sufficiently comprehensive definition of insanity, for all practical purposes, the basis of disease being admitted, than to frame a definition of anything else. Yet definitions are always difficult. We have not found an absolutely unobjectionable definition of health or an unerring definition of disease in general.

In Shakspeare's day there were so many exceptions to the definitions of insanity that he was forced to say:

To define true madness, what is't?
But to be nothing else but mad!

The definition of Gooche and Combe just referred to is as follows: "*A prolonged departure, without adequate external cause, from the state of feeling and modes of thought usual to the individual.*" Such a departure from one's natural self could only be brought about by disease, affecting the mind.

This definition does not embrace the mania transitories, in the existence of which many alienists believe and which no one has more satisfactorily demonstrated than Dr. Edward Jarvis, of Dorchester, Mass., and the essential element of disease is omitted. Dr. Ray, however, in his most excellent work on the jurisprudence of insanity, quotes with approval and italicizes this definition, which is indeed a most excellent and comprehensive symptomatic description of insanity as usually seen in our asylums, adding that "the degree at which this disorder ought to be held, as constituting insanity, is a question on which we can scarcely hope for unanimity of sentiment."

But though a prolonged departure usually characterizes insanity, it is not necessary to constitute its existence absolutely.

1. Diseases of the Mind, p. 16, referring to the cases related in his day by Drs. Stark & DeHaen.

It may begin with the delirium of a fever or immediately follow a blow on the head. Cases, however, in which the mental aberration is suddenly manifested, have, in our observation, almost invariably been those in which there has been a prodromal or incubative stage of apoplectic threatenings or epileptic or epileptiform seizures or marked depression of spirits.

The insane symptoms may disappear in a case of transitory or recurrent mania, with the subsidence of the cerebral hyperæmia or other cause which may have occasioned them, and the *external cause may be adequate* to produce either a transitory or a prolonged change in the habits of thought, feeling or action of the individual, and that mental changes have nevertheless all the characteristics of insanity. *Chronicity* is objectionable and the adequacy or inadequacy of the external cause, though usually a very significant fact, is immaterial, so that the internal or physical cause be a morbid one, and the mental departure from the natural habits of thought, feeling or action of the individual be dependent upon that morbid physical cause. Insanity, therefore, whether acute or chronic, and howsoever acute, or howsoever chronic, is such a mental change in the individual resulting from cerebral disease, as causes him to act not in harmony with his natural self and surroundings.

In a state of mental health the mental faculties appear to act as a whole. There is a peculiar harmony in their action, and in their relation to each other in action, giving to each person a distinct mentality, and constituting the individual's natural character.

In insanity this natural, harmonious action is disturbed, and the lunatic is neither in harmony with himself, as he has appeared naturally or with his surroundings. He is deranged in regard to both.

If no change in the habits of thought, feeling or action of the individual takes place, then it is not insanity. *The true test of insanity, therefore, is the comparison of the individual with his former self taken in connection with the disease of the brain.*

There are but few objections to this definition that I know of; the principle one being aphasia, where no mental aberration of necessity really co-exists, for a man may be both aphasic and rational as well as aphasic and insane.

Here then is a disease of the brain which always produces, to some extent, a change in the manner, if not in the habit of thought of the afflicted individual, and in some of his feelings and modes of action, and yet there need be no insanity in consequence of it.

Thus you see how difficult it is to find an absolutely unerring definition of this disease.

But if the aphasic person, or the apoplectic person, or the individual suffering from cerebral traumatism, especially of the anterior lobes of one hemisphere (as sometimes happens, with-

out delirium or other mental disturbance), recognizes in a rational manner, that his brain is injured, and appreciates the extent of his disability and the necessity for modified mental and physical activity and comports himself mentally in accordance with the facts; he is not insane, and it is here that the qualifying clause, *in harmony with one's natural self and surroundings becomes the saving clause that establishes one's sanity, even though he have disease of the brain, while our inability to truthfully affirm the existence of this harmony, establishes the presence of mental disease.*

The brain may either be primarily or secondarily involved in disease. The physical cause of the insanity may be mainly in the sympathetic nervous system largely dependent on disease of the uterus, the genitals or the liver.

As the cerebro-spinal centers may morbidly influence through motor, sensory and sympathetic nerve channels, the tissues and organs with which they are in communication, so may morbid states at the periphery of nerves, reciprocally affect the brain, as is illustrated in epilepsy, convulsions and neuralgia; and, as other diseases are occasionally devoid of their usual characteristics, so may we sometimes fail to find any physical sign of insanity.

In those exceedingly rare instances, where the subtle morbid processes still escape our search for them, we need not therefore conclude that there is no disease, if we but remember how far more subtle than the most penetrating research, are the processes of disease in the human organism elsewhere; as in the insidious morbid changes which first follow the imperceptible, imponderable, intangible virus, or germ, or malaria, of an atmospheric infection, the unseen and unknown contagia of the exanthemata, the quick and certain work of some of the more tangible but infinitesimal poisons, or the structural causes of such undoubtedly physical diseases as hysteria, tetanus or chorea. I need not illustrate further.

It must be borne in mind that every definition of this disorder is an attempt to aggregate many morbid conditions into one comprehensive and brief description—to so unify all the neuro-psychic disorders beginning or ending in the brain and disordering the mind as to make any and every form of insanity readily recognizable by applying to it the test of a single comprehensive definition, yet we succeed better in grouping together all the diseases of the brain affecting the mind, than if we were to attempt to comprehensively define all the diseases of the spinal cord or nervous system elsewhere, affecting sensation and motion.

When expected to give a definition of insanity in a court, it is well to state the fact that while all of the insanities have many similar features, many of them have symptomatic, as well as lesional characteristics, quite distinctive.

The many forms and varieties of insanity which reveal them-

selves to us when we make a diligent clinical search for them has led to the notion entertained and expressed by eminent alienists, that it can not be clearly defined, notwithstanding which fact most writers, as I to-night, have been lured into the attempt.

The fact is, like the working out of some examples in decimal fractions, the attempt is fascinating, even though we may have to content ourselves with a plus or minus quantity.

²The beginning of all disease is altered molecular action, either in the blood, which nourishes a part or organ and which is its life, or in the nerves, which constitute the soul, so to speak, of organic function. Next follows more profound changes, which we recognize as structural and marked derangement of organic functions; we then have recognizable and appreciable disease. When there is organic disease, i. e., either a functional or structural disease of a whole organ, we have change in its natural manner of acting, whether it be in the heart, the lungs, the liver, the abdominal or thoracic viscera, or in the cerebro-spinal axis.

Wherever it may be the natural manner of action is changed, and the organ or part involved is neither in harmony with itself naturally nor with its surroundings in the organism.

So is it with the lower and higher centers of the brain; if the former are affected, paralysis results; if the latter, psychical disturbance.

So that insanity conforms to the law of all other diseases in being a departure from natural function due to morbid invasion, and differs from them only in the fact that the invaded territory is that which is occupied especially by the mind.

It is this fact which brings it within the legitimate province of the physician.

The many recorded instances of extensive organic disease of the brain, both old and new, but especially Dr. Harlow's marvelous case—Pheneas P. Gage—still fresh in memory, the anterior portion of the left hemisphere of whose brain was penetrated through and through with an inch and three quarter diameter tamping iron, and Dr. Walter Kempster's more recent interesting case of atrophy of a hemisphere, without persistent psychic disorder, are not incompatible with the view that insanity is a disease when we consider that the cerebrum, like the cerebellum is a dual organ and that its hemispheres are capable of an independent and vicarious function, and likewise, probably, some of its convolutions, on the same side. (See Author's paper on the Dual Actions and Vicarious Functions of the Hemispheres, *American Journal Insanity*, October, 1875.) If a dart or ball go through the liver, the stomach, the bowels or transfix the upper part of the spinal cord, the result will be much more cer-

2. The writer elaborated this view in 1859 in a thesis for the degree of M. D., St. Louis Medical College.

tainly fatal than if one lung, one kidney or one cerebral hemisphere be injured, though great sudden violence to any of these organs is most generally fatal.

Like most of the other dual organisms, the brain can, and often does, accommodate itself to gradually invading disease, and continue to perform its normal functions despite the latter's presence, to no inconsiderable degree.

The higher centers of the brain concerned in the display of mind, are wonderfully conservative of their integrity, and often slow to yield to morbid assaults, especially where there exists no hereditary insane diathesis or inborn tendency to take on morbid action.

Considerable lesion of the medullary substance of either or both hemispheres may co-exist with a perfectly sound state of mind and in both hemispheres in what Ferrier and the localizers call the pre-frontal region of the cerebrum and in either hemisphere of the cerebellum³ may exist without materially deranging the mind.

Mentality resides neither in the cerebellum nor chiefly in the frontal lobes, nor in a single hemisphere, as has been abundantly demonstrated by Physiological and Pathological testimony.⁴ Moreover, brain tissue, like nerve tissue, elsewhere, as Dr. Jno. P. Gray⁵ has shown, is capable of being reproduced and repaired.

An objection sometimes still urged against the somatic or material substratum view of insanity is based on the sudden cures which sometimes take place, as when a delusion has been dissipated by a joke or a fixed morbid idea driven away from the mind by a stratagem. The psychical portion of the brain is naturally susceptible to mental impressions; so are the other parts of the body wherever the sympathetic nervous system reaches, as we see abundantly proven in the singular phenomena of neuro-psychic or metallo-therapy of M. Burq, lately revived by Charcot; as we see it sometimes displayed in the prompt suppression of a chill on the occurrence of a sudden alarm; in fear starting the voluntary excretory functions or preventing a convulsion; in unwelcome or bad news taking away the appetite, or stopping the heart, or in too sudden and unexpected good news causing it to beat with redoubled force or cease its throbbing altogether.

I need not recount in further illustration, the manifold vasomotor disturbances such as cause the blush of shame, the flush of anger, or the pallid face of fear.

3. See paper on Unilateral Cerebellum Disease without Persistence of Symptoms, by the Author in *Journal of Mental and Nervous Diseases*, October, 1877, and Flint's *Phy. and Andral's Cases*.

4. See writing of Hughling Jackson and Charlton Bastian.

5. Reprint from *Trans. N. Y. Academy of Med.*, February 18th, 1875, *American Journal In.*, April, 1876.

THE PHYSICIAN AS A PSYCHOLOGICAL EXPERT IN COURT.*

It being conceded, then, that insanity is a disease, the question first of all to be determined by the physician summoned in a medico legal inquiry to pass upon the sanity or insanity of a person arraigned before a court, is as to the existence of disease impairing the mind.

The presence or absence of singularities of conduct, of the knowledge of right and wrong, or even of hallucinations, illusions or delusions, are subsidiary to the question of *disease impairing the mind*, though upon these are we sometimes alone or mainly compelled to predicate an opinion, so meagre do we occasionally find the pathological data to be.

Metaphysical conceptions of what ought to constitute a sound mind in persons generally, and as one himself would act under given circumstances, and supposing another insane if he acts differently, mislead the judgment and are liable to get the physician into one of those cunningly devised logical traps that lawyers are so clever at constructing, to the chagrin and discomfiture of unwary and inexperienced men of medicine. A purely metaphysical conception of mental disease is difficult to frame and hard to maintain. A sharp lawyer wants no better victim on the witness stand than an expert so incautious as to attempt such a definition.

If by searching diligently we can find out disease sufficient to account for what appears *prima facie* to be irrational conduct in a person, we should stick to that as the mariner to chart and compass. In battling for disease the medical man ought to be invulnerable. He might fail as a pure psychologist, in crossing swords with a scion of the law.

If erratic conduct and most singular speech be not traceable to disease involving the mind, a patient and laborious search may reveal a rational though sometimes base and unexpected motive, to account for them. Before the courts, then, when the existence or non-existence of mental aberration is to be determined, disease is the physician's fort, from which, if he be well informed in symptomatology and morbid processes, he cannot easily be driven.

* Delivered by invitation before the Southern Illinois Medical Association, at Sparta, Ill., on the evening of June 20th, 1879.

If, in a person concerning whom the question of insanity has been raised, the physician, on careful examination, finds accompanying or ante dating the outbreak of questionable conduct or even immediately preceding it, any considerable degree of disease implicating the organ of the mind, to say nothing of those graver forms of cerebral disorder, such as softening, epilepsy or apoplexy, accompanied with a family history of ancestral insanity or other serious disease of the brain and nervous system, he will generally find little difficulty in arriving at a satisfactory explanation of erratic speech and actions, that are otherwise inexplicable.

But before he concludes that singular, immoral, or unlawful or apparently unjust actions, are the result of disease, he must be sure that they are not otherwise explainable for what may appear to be the most irrational conduct, while the real motives are hidden from view, may, in reality, when all the influences leading to it are fully revealed, be the most rational and absolutely inexplicable upon any other hypothesis than that of entire mental soundness, as was not long ago aptly illustrated in the case of that prison-hardened outlaw, Frank Rande, the American brigand, the Knox county desperado, the "daring and brilliant young bandit of the Wabash," as he styled himself, who is now serving out at Joliet a life sentence for murder. Rande's life had been one from early manhood mainly of reckless adventure and outlawry and he did many things which persons settled down in life and more regardful of its proprieties and the restraints of society and law would not have done, but he was not insane. His course in life was not the result of disease, but of the corrupting influences of evil communications. He was seldom ever physically indisposed in any way and never lost sleep, except when voluntarily depriving himself of it to plot evil.

In this connection it is interesting to note in your State the gradual invasion into judicial territory of the true idea of insanity. The prosecution in this trial cited the case of *Hopps vs. the People*, 31 Ill., p. 390, in which Chief Justice Breese says: "It is now generally conceded that insanity is a disease of the brain, of that mass of matter through and by which that mysterious power, the mind, acts. There the mind is supposed to be enthroned," etc.

With this decision to guide him, and the accordant testimony of the medical experts, Mr. J. J. Tunnicliffe, the able States Attorney, made a most clear and convincing analysis of all the facts and a powerful plea. He concluded that Rande was sane because his change of character was due to adequate external cause, and not disease, "the chief cause of an insane man's action being the disease of the brain."¹

1. State of Illinois. Knox County, February term, 1878; *People vs. Frank Rande*; indictment for murder.

Thus far our subject seems plain enough, insanity being undoubtedly a disease of the brain, as *post mortem* examinations have always established, where the search for the cerebral lesion has been made with microscopical precision and the eye of a skilled pathologist, and as the physical symptoms during life most frequently reveal.

But there are cases of this disorder, more especially in its chronic form, where our diagnosis must be made mainly, sometimes exclusively, on the psychic symptoms alone. These are the cases which will most perplex and confound the general practitioner, as they may even stagger the best psychological expert, tax to the utmost his ingenuity, call into requisition all the resources he has gained from extensive observation, and cause him to wish he had more. It is one of the mysteries of insanity, that while it is really one of the most serious afflictions of the brain, it sometimes reveals to us the very slightest and with difficulty detected cerebral symptoms, while apparently the gravest forms of disease of the brain do not always and of necessity cause disorder of the mind to such a degree as to constitute insanity.

The physical tumult which ushers in and accompanies the earlier stage of insanity sometimes subsides, leaving only a cerebral-mental scar behind, discernible by no physical sign. The interrogation of the mental workings alone must here be relied on to reveal the existence of disorder in the delicate physical machinery of the mind, in the many-shaped and numberless cells of the cerebral cortex, or in the vessels and meninges or cavities of the brain.

There are cases the existence of whose insanity is only a suspicion, or a possibility or probability, based not so much on any marked physical disease perceptibly involving the brain, as in singular conduct and opinions and indubitable hereditary taint, like that of Passanante, who lately attempted the life of the King of Italy. Though a commission of medical inquiry in his own country found no evidence of insanity in him, he was of a nerve degenerate family, three of his brothers and two of his sisters in a family of seven having been insane, and an eminent alienist of great skill and large experience in practical psychiatry¹ entertained no doubt of Passanante being in a state of incubative insanity.

A man of Utopian ideas and one-sided mental culture, rapidity of perception and judgment, uncommon activity of ideas, and expressing them in a manner superior to his station (for he was a cook by trade), keen in attention, rapidly passing from one subject to another, imaginative and profoundly convinced of his own ideas, and ready to bear witness to them with his life, ready, easy and quick of speech, heedless of self and self concerns, of

1. Dr. Joseph Workman, of Canada, former Superintendent of the Toronto Asylum, in *St. Louis Med. and Surg. Jour.*, May, 1879.

a mild, smiling and sharp physiognomy, sanctifying the love of parents and friends, precocious and fervent in his religious feeling, inveighing against vices and abuses, excusing his crime by saying he wanted to avenge his people, and that ideas ought to be baptized in blood, unmindful of death but tenacious of his principles and scorning to be called a lunatic, as the commission describe him, the manner of action of this common Italian cook whose brothers and sisters all but one have been insane, certainly excites the reasonable suspicion of incubative insanity.

It often happens that a startling crime or astounding folly entirely out of harmony with the individual's known character, for the first time excites suspicion of his mental soundness or by its very flagrant and otherwise inexplicable nature in the person perpetrating it, attests the presence of disease, involving the brain.

Such a case was that of Mr. J. H. Murphy, the St. Louis Mutual Life Insurance clerk who, in the prime of life and with none depending upon him for a support, and possessing a library of near two thousand volumes of the choicest standard works of literature, philosophy, history and art, which had been the constant companion of his leisure hours, took his life in the most deliberate and horrible manner because he feared he might lose his situation.

The change in his manner attracted the attention of his friends, a short time before the tragedy, but I saw him only a few weeks before his death and he then expressed himself as feeling well, as he really appeared. The real proof of his mental aberration was not in an appreciable physical lesion of the brain, but in his history of prior insanity. He was, years ago, a patient of mine at Fulton. He had then attempted his life by jumping into the Missouri river. He finally succeeded in destroying it by cutting his throat.

In this connection a most enticing field in practical psychiatry into which, for want of time, I dare not enter to-night, is the value of certain psychic symptoms, such as hallucination, illusion and delusion in the determination of certain morbid states and the prognostic significance of some forms of delusion.

Delusions are often of especial significance. An instance of but little appreciable physical disease, coexisting with really grave mental disturbance, was lately presented in the case of Mark Gray, the stage struck youth who shot at Edwin Booth in McVicker's Theater, and I have now under treatment, at my home in St. Louis, a young man from a remote part of Missouri, undoubtedly insane, who presents no physical evidence of disease, save insomnia, that any one might not have and be perfectly rational. Both of these gentlemen however have delusions.

The extravagances of the insane mind sometimes astonish us, fortunately, however, not often, without appreciable physical disease to account for them.

The vagaries of the rational mind do likewise sometimes surprise us as we see them recorded in the history of the human race and in the fanatical conduct and follies of individuals, as well as States and communities, not to be extenuated or covered by the charitable mantle of cerebral disease. We see this aptly illustrated in the late Pocasset tragedy, where a devoted father, apparently without cerebro-mental disease, without anger, but in obedience to the impulse of a long matured and blind fanaticism plunged the cruel blade into the heart of his child, fanatically or morbidly firm in the faith that the same invisible hand that stayed the uplifted arm of Abraham of old and arrested the death of his son, would likewise stay his hand ere the fatal knife, in its descent, might reach the heart of his child, and whose faith in the power and disposition of God to restore the child's life persisted after its little trusting heart had ceased to beat, and the earth had hidden from view forever the lifeless handiwork of Freeman's folly.

Instances of faith as strong as that of Freeman and his wife, where an unshakable belief in the omnipotence of implicit, unquestioning faith to bring about whatever is undoubtingly asked, are not only historically numerous, but they are of every day observation, though such tragic culminations as that at Pocasset are not common.

Was Freeman insane? Was his wife, consenting to the bloody, unnatural deed, insane? Were the twenty Second Adventists at Pocasset, who justified and kept secret this horror, deluded by reason of disease involving the seat of mentality, or by a blind fanaticism? Is the Hindoo mother who casts her child to the crocodiles of the Ganges insane? Was Abraham mentally deranged? How cautious must be our answer.

Abraham, we are told in sacred story, was not deceived. He trusted not in vain; but in these latter days, an egotism akin to madness, sometimes supplements the faith of old.

There are many victims of misplaced and unwarranted confidence in God, by reason of misunderstanding of themselves and misinterpretation of "the Word," and yet they are not all insane, though the explanation of many singularities of scriptural misinterpretation and eccentricities of religious conduct and belief, as well as strange actions and expressions on other than Bible subjects, is very often to be found in the existence of insidious disease of the brain.

Cases like that of the Pocasset horror will not unfrequently arise to stagger the law's criterion of responsibility, viz., a knowledge of right and wrong, and to confound our definitions of insanity. The mind may be deluded and still not be insane, and there are other conditions than insanity that should mitigate and extenuate crime. There are other questions that engage the thoughtful attention of the psychologist than the criminal and the insane neurosis.

All crime is not disease, Dr. Maudsley to the contrary notwithstanding. A patient of mine once, with but little previous warning to her friends of impending mental overthrow, cut the throats of her two bright and really promising children, under the morbid impression that they were destined to grow up idiotic. Previous loss of sleep and over watchfulness had caused her brain to give way, as Freeman's may have done. In time the cloud passed from her mind, and she recovered to lament and to discern that disease and not her natural self had done the awful deed. This case, placed in juxtaposition to that of Freeman, admonishes us that we must often discuss questions in psychiatry with great caution, and decide them with thoughtful hesitation and prudence.

THE DISTINCTION BETWEEN INSANITY, IDIOCY, IMBECILITY, ECCENTRICITY AND GENIUS.

Insanity defined upon the basis of disease is thus distinct from idiocy and imbecility, by the fact of comparison of the individual in the two latter conditions with himself, revealing no change in mental manifestation dependent upon disease, and no disharmony with his natural self and surroundings in consequence thereof. What the idiot and imbecile are now they have always been, namely, mentally deficient. The eccentric person likewise, though differing from other men in general, has not changed when compared with himself, and so also those "great wits to madmen near allied"—those children of genius renowned for doing things so unlike and beyond the rest of mankind. It is natural for them to soar above the common flock and be singular.

If any other standard than self-comparison were adopted it would not be difficult to make most men out insane, for individuals differ as much from each other as nations do. Indeed, a great English philosopher, observing that there is something odd in most men, called them mad.¹ He had not a true conception of insanity as we have attempted to portray it, based on change of character dependent on disease.

Some writers on the jurisprudence of insanity have included idiocy and imbecility in their classification of insanity, while others have drawn a line of demarkation between the congenital deficiency of idiocy, the arrested development of imbecility, and the *disease* insanity. Blandford considers imbeciles and idiots of unsound mind, but "not insane in the ordinary sense of the word." Maudsley, I think, does not discuss the subject, and Esquirol draws the distinction we have given, based upon the difference between cerebral *disease* and congenital brain *deficiency*.

1. John Locke.

The distinction between idiots and imbeciles is mainly recognizable in the inability of the former and capacity of the latter to converse more or less intelligibly, and in his generally less deformed or contracted crania, while he is distinguished from others of his age by displaying less than average intelligence and far less moral sense.

Hoffbauer makes five degrees of imbecility and three of stupidity, the highest degree of imbecility being not far below the average human intelligence. The subject is ably discussed in Ray's masterpiece on the Jurisprudence of Insanity, and we have not time to give it much attention here. No cases, however, are more puzzling to courts and juries and physicians and guardians than these; none require closer study.

Important questions of personal liberty and rights, of testamentary capacity and responsibility to law, arise in connection with imbecility. Imbeciles of a certain degree ought not to be permitted to marry, to make a contract or a will, or to be held responsible for a crime.

Hoffbauer made the grave mistake, as Dr. Ray has pointed out,¹ of omitting the state of the moral faculties in his description of the various grades of imbecility, for no fact is better attested by observation than that many imbeciles are glaringly deficient in moral sense, while in a very large number the moral deficiency exceeds the intellectual.

An interesting case illustrative of the importance of an understanding of the subject, may be found in the case of the State of Missouri vs. Benj. F. Cronenbold, for murder in the first degree, in 1874, which came under my personal observation. (Reported at length in the April, 1875, No. of the *Amer. Jour. of Insanity*.) In that case the court showed an exceptional appreciation of the value of medical testimony, referring the question of the prisoner's mental status to a commission of five physicians—a *commissio de lunatico inquirendo*—as it is legally called.

I made the young man eighteen lengthy visits, conversing with and observing him the best I could, and have seen no case in all my experience exacting more reflection in order to reach a conclusion satisfactory to myself than this, except, possibly, a recent one involving the question of aphasia or aphasic insanity, a reprint of which, from the *American Journal of Insanity* for January, I lay before you. Cronenbold is now in the State Asylum at Fulton, Mo., the proper life abode for all such persons. His case never came to trial.

In this case the majesty of the law, for which our legal friends are always so clamorous, when on the side of the prosecution, has been vindicated. Even handed justice, balancing in her scales the weak mind against the letter of the law, sees them equi-poised and is satisfied, society is secure from an unsafe member,

1. Jurisp., Insane, p. 130.

and mercy drops a tear over the page, which, but for the restraining hand of science, had now become the bloody record of legal vengeance upon a victim innocent, because maimed in mind and irresponsible. Procedures like that in the case of Cronenbold, I fear are not likely to be made precedents, for the imbecile receives but little commiseration in criminal courts. Weakness of mind is not recognized by the strong minded who wear the robes of law or by the public in general as much of an excuse for crime.

Respecting the imbecile truer words than these were never spoken. They were uttered by that Corypheas in forensic psychiatry, whom the profession delights to honor and to whom I have before referred — Dr. Isaac Ray, in his Medical Jurisprudence of Insanity: "While the public feeling has become too refined to tolerate the infliction of blows and stripes on the imbecile and the mad in institutions where they are confined, and is inclined to discountenance altogether the idea of punishment as applied to the insane, it can still be gratified by gazing on the dying agonies of a being unable to comprehend between his crime and the penalties attached to it, and utterly insensible to the nature of his awful situation. The voice of reason and humanity which speaks successfully in the first instance, is, in the last, drowned by the more imperious tones of prejudice and passion."

ERRATA.

On p. 3, the 13th, 14th and 15th lines from the bottom, should read as follows: *Æsclepiades, Cœlius, Aurelianus and Celsus treated it as disease. Galen called it delirium sine febre, and Aretius semper sine febre.*